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(54) Zipper strip and packaging using it

(57) A zipper strip (10) for a reclosable bag or package (110) Figure 8) includes a male interlocking profile (12) and a female interlocking profile (14). The male interlocking profile (12) includes a male interlocking member (16) and a male web (20) coextruded therewith. In like manner, the female interlocking profile (14) includes a female interlocking member (18) and a female web (22). The male interlocking member (16) snapingly engages into the female interlocking member (18) to join the profiles (12, 14) to one another. One of the male and female webs (20, 22) is wider than the other in at least one of two directions extending outwards from the male and female interlocking members (16, 18), the greater width forming at least one flange (24, 26) extending widthwise beyond the other web. The zipper strip (10) is designed to be attached to thermoplastic sheet material (50) by sealing the at least one flange (24, 26) thereto without sealing the male and female webs (20, 22) to each other. Methods for securing the zipper strip (10) to thermoplastic sheet material, and for making packages on a horizontal form-fill-and-seal machine, are also disclosed.

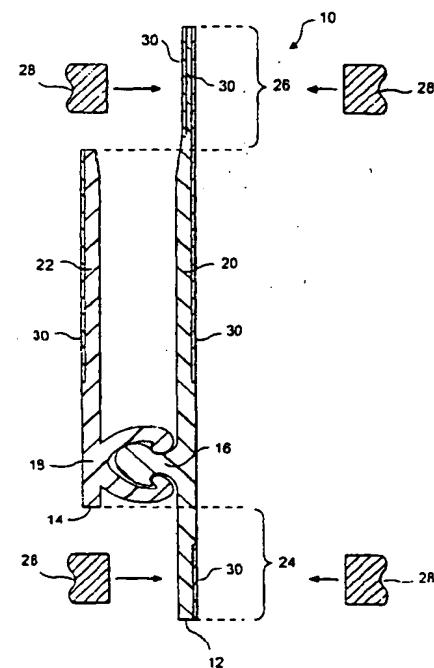


FIG. 1

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EUROPEAN SEARCH REPORT

Application Number

EP 98 30 0178

DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int.Cl.6) | | |
|--|--|-------------------|--|--|--|
| X | WO 97 06062 A (YEAGER JAMES WORTH) 20 February 1997 * page 9, last paragraph - page 10; claim 44; figures * | 1-10 | B31B19/90 | | |
| A | EP 0 282 723 A (MINIGRIP EUROPE GMBH) 21 September 1988 * figure 1 * | 4 | | | |
| A | BE 664 523 A (FAYARD ET RAVEL) 16 September 1965 * figure 2 * | 1 | | | |
| | | | TECHNICAL FIELDS SEARCHED (Int.Cl.6) | | |
| | | | B31B | | |
| The present search report has been drawn up for all claims | | | | | |
| Place of search | Date of completion of the search | Examiner | | | |
| THE HAGUE | 1 June 1999 | Pipping, L | | | |
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01-06-1999

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---------------------|---|--|
| WO 9706062 A | 20-02-1997 | AU 4012495 A CA 2229034 A EP 0843636 A FI 980288 A US 5823933 A US 5782733 A | 05-03-1997 20-02-1997 27-05-1998 09-02-1998 20-10-1998 21-07-1998 |
| EP 0282723 A | 21-09-1988 | CA 1294473 A DE 3871192 A DK 143888 A FI 881235 A, B, US 4878987 A | 21-01-1992 25-06-1992 17-09-1988 17-09-1988 07-11-1989 |
| BE 664523 A | 16-09-1965 | DK 111226 B GB 1102232 A LU 48694 A MC 535 A NL 6509490 A | 01-07-1968 26-07-1965 07-02-1966 08-02-1966 |

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